

=> d l11 1-2 abs,bib

L11 ANSWER 1 OF 2 USPATFULL on STN

AB An aerosol of a powder composed of helium carrier gas and particles of a hexagonal aluminum nitride is charged through a transfer pipe 3 into a film deposition chamber 4 whose interior is depressurized by gas evacuation using a vacuum pump 5 to maintain a degree of vacuum of 200-8000 Pa during supply of the carrier gas and the aerosol is blown from a nozzle 6 provided on the end of the transfer pipe 3 inside the film deposition chamber 4 to impinge on a substrate fastened to a substrate holder 7 to make the impact force of the particles at collision with the substrate 4 GPa or greater, thereby transforming the crystal structure of the aluminum nitride from hexagonal to cubic to deposit cubic aluminum nitride on the substrate. As a result, a method of transforming the crystal structure of a Group XIII nitride is provided that enables transformation of a Group XIII nitride to cubic crystal structure using a system of simpler configuration than that used for transforming the crystal structure of a Group XIII nitride by a static pressure application process.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2007183884 USPATFULL

TI METHOD OF ALTERING CRYSTAL STRUCTURE OF GROUP 13 ELEMENT NITRIDE, GROUP 13 ELEMENT NITRIDE AND STRUCTURE MATERIAL CONTAINING CUBIC NITRIDE

IN Iwata, Atsushi, C/O NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL, SCIENCE AND TECHNOLOGY, 2-1, NAMIKI 1-CHOME, TSUKUBA-SHI, JAPAN 305-8564

PA NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY, TOKYO, JAPAN, 100-8921 (non-U.S. corporation)

PI US 2007160872 A1 20070712

US 2008003458 A2 20080103

AI US 2004-549848 A1 20040319 (10)
WO 2004-JP3739 20040319
20060522 PCT 371 date

DT Utility

FS APPLICATION

LREP OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314, US

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN 5 Drawing Page(s)

LN.CNT 469

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 2 OF 2 USPAT2 on STN

AB An aerosol of a powder composed of helium carrier gas and particles of a hexagonal aluminum nitride is charged through a transfer pipe 3 into a film deposition chamber 4 whose interior is depressurized by gas evacuation using a vacuum pump 5 to maintain a degree of vacuum of 200-8000 Pa during supply of the carrier gas and the aerosol is blown from a nozzle 6 provided on the end of the transfer pipe 3 inside the film deposition chamber 4 to impinge on a substrate fastened to a substrate holder 7 to make the impact force of the particles at collision with the substrate 4 GPa or greater, thereby transforming the crystal structure of the aluminum nitride from hexagonal to cubic to deposit cubic aluminum nitride on the substrate. As a result, a method of transforming the crystal structure of a

Group XIII nitride is provided that enables transformation of a Group XIII nitride to cubic crystal structure using a system of simpler configuration than that used for transforming the crystal structure of a Group XIII nitride by a static pressure application process.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2007183884 USPAT2
TI METHOD OF ALTERING CRYSTAL STRUCTURE OF GROUP 13 ELEMENT NITRIDE, GROUP 13 ELEMENT NITRIDE AND STRUCTURE MATERIAL CONTAINING CUBIC NITRIDE
IN IWATA, Atsushi, c/o National Institute of Advanced Industrial Science and Technology 2-1, Namiki 1-chome, Tsukuba-shi, JAPAN 305-8564 AKEDO, Jun, c/o National Institute of Advanced Industrial, Science and Technology 2-1, Namiki 1-chome, Tsukuba-shi, JAPAN 305-8564
PA National Institute of Advanced Industrial Science and Technology, Tokyo, JAPAN, 100-8921 (non-U.S. corporation)
PI US 2008003458 A2 20080103
AI US 2006-549848 A1 20060522 (10)
PRAI JP 2003-77389 20030320
DT Utility
FS APPLICATION
LREP OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314, UNITED STATES
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 468
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 10:54:55 ON 14 APR 2008)

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPATOLD, USPAT2' ENTERED AT 10:55:25 ON 14 APR 2008
L1 22 S (GROUP(W)XIII)(8A) (NITRIDE(6A)CRYSTAL#)
L2 13693201 S (TRANSFORM? OR CHANG? OR ALTER? OR VARY?)
L3 1045400 S (CRYSTAL?(8A)STRUCTURE#)
L4 233 S (AEROSOL#) (8A) (MATERIAL(6A)POWDER#)
L5 38 S (BLOW? OR PUSH? OR EXPEL?) (8A) (AEROSOL(8A)SUBSTRATE#)
L6 47 S (DEPRESSUR?) (8A) (DEPOSIT?(6A)CHAMBER# OR DEPOSIT?(6A)VESSEL#)
L7 296131 S (HEXAGON?)
L8 5837 S (4(W)GPA)
L9 27 S (GROUP(W)XIII)(10A) (NITRIDE#)
L10 24 S L2 AND L9
L11 2 S L2 AND L3 AND L8 AND L9

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